

PATENT
App. Ser. No.: 10/038,008
Atty. Dkt. No. ROC920010193US2
PS Ref. No.: IBMK10194

IN THE CLAIMS:

The claims remain as follows:

1. (Previously Presented) A method of processing messages, comprising:
receiving, at a socket configured for a server application executing on a computer, data from a remote source via a network connection prior to allocating a buffer to contain the data; and subsequently:
determining a mode to obtain the buffer according to a buffer mode parameter supplied with a receive operation call, wherein the buffer mode parameter indicates a buffer acquisition method for acquiring a buffer to contain the data received from a remote source via the network connection;
obtaining the buffer according to the buffer acquisition method, wherein the obtained buffer is sized exactly to the size of the data received from the remote source; and
allocating the obtained buffer to contain the data.
2. (Original) The method of claim 1, wherein the messages are client-server messages.
3. (Original) The method of claim 1, wherein the data is received over a sockets streaming protocol.
4. (Canceled)
5. (Previously Presented) The method of claim 1, wherein the allocating is performed in response to a buffer request from the socket.
6. (Previously Amended) The method of claim 1, wherein the network connection is a Transport Control Protocol/Internet Protocol (TCP/IP) connection.
7. (Original) The method of claim 1, wherein allocating the buffer comprises: processing a buffer request from a sockets layer after receiving the data; and

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providing the buffer to the sockets layer.

8. (Canceled)
9. (Previously Presented) A tangible computer readable medium containing a program which, when executed by a computer, performs operations for processing messages, the operations comprising:
 - processing an input operation issued from a sockets server application to a sockets layer of the computer, wherein the input operation is configured with a buffer mode parameter indicating to the sockets layer a buffer acquisition method for acquiring a buffer for containing data received from a remote source via a network connection;
 - receiving the data from the remote source via the network connection;
 - subsequently
 - obtaining the buffer according to the buffer acquisition method, wherein the obtained buffer is sized exactly to the size of the data received from the remote source;
 - and
 - allocating the obtained buffer.
10. (Previously Presented) The tangible computer readable medium of claim 9, wherein the messages are client-server messages.
11. (Previously Presented) The tangible computer readable medium of claim 9, wherein the data is received over a sockets streaming protocol.
12. (Previously Presented) The tangible computer readable medium of claim 9, wherein the input operation is further configured with a record definition specifying to the sockets layer a format of the data.
13. (Canceled)
14. (Previously Presented) The tangible computer readable medium of claim 10, wherein the allocation is performed by one of the sockets server application and the sockets layer.

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15. (Previously Presented) The tangible computer readable medium of claim 10, wherein the buffer is allocated from one of:
 - storage owned by the sockets server application; and
 - system-supplied storage not owned by the sockets server application.
16. (Canceled)
17. (Previously Presented) The computer tangible readable medium of claim 10, wherein allocating the buffer comprises executing a callback function provided by the sockets server application with an instruction to allocate the buffer.
18. (Previously Presented) The tangible computer readable medium of claim 10, wherein the allocating is performed in response to a buffer request made by the sockets layer.
19. (Previously Presented) The tangible computer readable medium of claim 9, further comprising:
 - if the buffer is large enough to contain the data, copying the data into a previously allocated buffer provided to the sockets layer with the input operation; and
 - if the previously allocated buffer is not large enough to contain the data, requesting a larger buffer sufficient to contain the data in accordance with the buffer acquisition method.
20. (Previously Presented) A system in a distributed environment, comprising:
 - a network interface configured to support a network connection with at least one other computer in the distributed environment;
 - a memory comprising a sockets server application, a socket in communication with the sockets server application and a protocol stack in communication with the socket, wherein the protocol stack is configured to transport messages between the network interface and the socket;
 - a processor configured to perform operations for processing messages, the operations comprising:

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processing an input operation issued from the sockets server application to the socket, wherein the input operation is configured with a buffer mode parameter indicating to the socket a buffer acquisition method for acquiring a buffer for containing data received from the at least one other computer; and
receiving the data; subsequently
obtaining the buffer according to the buffer acquisition method, wherein the obtained buffer is sized exactly to the size of the data received from the remote source; and
allocating the obtained buffer.

21. (Original) The system of claim 20, wherein the messages are client-server messages.
22. (Original) The system of claim 20, wherein the protocol stack is configured for a sockets streaming protocol.
23. (Original) The system of claim 20, wherein the memory comprises record definition specifying to the socket a format of the data.
24. (Canceled)
25. (Previously Presented) The system of claim 20, wherein the allocation is performed by one of the sockets server application and the socket.
26. (Previously Presented) The system of claim 20, further comprising application-supplied storage owned by the sockets server application and system-supplied storage not owned by the sockets server application and wherein allocating the buffer is dependent on a value of the buffer mode parameter and comprises one of:
allocating the buffer from application-supplied storage when the buffer mode parameter has a first value; and
allocating the buffer from system-supplied storage when the buffer mode parameter has a second value.

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27. (Canceled)

28. (Previously Presented) The system of claim 20, wherein allocating the buffer comprises executing a callback function provided by the sockets server application with an instruction to allocate the buffer.

29. (Previously Presented) The system of claim 20, wherein the allocating is performed in response to a buffer request made by the socket.

30. (Canceled)